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EXAMINER
DAILEY, THOMAS J

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 August 2007*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,17-24,26,27 and 29-37* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12, 17-24, 26-27, and 29-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last

   Office action is persuasive and, therefore, the finality of that action is withdrawn.

2. Claims 1-12, 17-24, 26-27, and 29-37 are pending.

Response to Arguments

3. The applicant argues that the examiner's 35 U.S.C. 112, second paragraph,

   rejection is improper, arguing that the term "approximately" is ubiquitous in patent

   claims and therefore it is not indefinite.

4. The examiner did not reject the claim solely for its use of the term

   "approximately" but rather its usage contrasted with the specification. The

   rejection maintained.

5. The applicant argues with respect to claims 1, 6, 24, 26, and 27 that Laube (US

   Pat. 4,653,086) does not teach "transmitting portions" of graphical data "at a

   controlled rate that does not exceed a predetermined maximum data transfer rate

   at which a bandwidth of the communication line would be exceeded."

6. The examiner disagrees. As the applicant points out, Laube discloses

   transmitting graphical information and voice data via a frequency multiplexer

   (column 5, lines 45-52). Transmission using frequency division multiplexing

inherently is done at a controlled rate with a predetermined maximum data

transfer rate, i.e. the bandwidths of the frequency divisions. Naturally it follows

that if both graphical information and voice data are transmitted using frequency

division multiplexing, the transmission of the graphical data alone can not exceed

that same "predetermined maximum data transfer rate at which a bandwidth of

the communication line would be exceeded" associated with frequency division

multiplexing. Evidence has been provided in the form of "Signals and Systems,"

Alan V. Oppenheim and Alan S. Willsky; 2nd Edition, 1997, pages 594-596.

7. The applicant argues with respect to claims 6 and 24, that Laube (US Pat.

4,653,086) does not teach " transmitting discrete data points" and asserts that

Laube does not define what "redundancy reduced data" comprises.

8. The examiner disagrees. Laube discloses that coordinate values are used to

represent graphical data (column 6, line 64-column 7, line 1). Naturally it follows

that "the redundancy reduced data" (column 7, lines 1-10) that is transmitted

uses a subset of the stored coordinate values, these coordinate values being

discrete data points.

9. The applicant argues with respect to claim 17, that Lamb does not disclose a

teaching or suggestion of determining and transmitting relative coordinates of

graphical data being input. Further, the applicant alleges that a person having

ordinary skill in the art would not think to add Lamb's "coordinate based format

description" into Laube's system.

10. The examiner disagrees. Claim 17's rejection under 35 USC 103 has been

maintained and the rationale supporting it has been given in greater detail below.

11. Arguments with regard to claims 27 and 29-36 are moot in view of new grounds

of rejection.

Claim Rejections - 35 USC § 112

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

13. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

14. The term "approximately" in claim 3 is a relative term which renders the claim

indefinite when contrasted with its usage in the specification.

The applicant is reminded, as provided in MPEP 2173.05(b):

When a term of degree is presented in a claim, first a determination is to be
made as to whether the specification provides some standard for measuring that
degree. If it does not, a determination is made as to whether one of ordinary skill

in the art, in view of the prior art and the status of the art, would be nevertheless reasonably apprised of the scope of the invention. *Even if the specification uses the same term of degree as in the claim, a rejection may be proper if the scope of the term is not understood when read in light of the specification.*

The term "approximately", given in the context of claim 3, "transmitting portions of the graphical data to such that **no more than approximately 2 kilobits** of graphical data is transmitted per second" (claim 3 lines 2-3, emphasis added) and contrasted with its usage in the specification, "Accordingly, with reference to block 308, the graphical data is transmitted at a controlled rate (under the control of the transmission control manager 214) that **does not exceed a predetermined maximum data transfer rate**. By way of example, the **maximum data transfer rate is set to approximately 2 kilobits per second**," (page 8, lines 19-23, emphasis added) renders the claim indefinite. The specification clearly states that the controlled rate does not exceed a maximum data transfer rate, and gives that maximum transfer rate an approximate value. However, the claim reads as transmitting no more than approximately 2 kilobits; transmitting at approximately 2 kilobits may very well exceed 2 kilobits and therefore no "predetermined maximum data transfer rate" not to be exceeded exists.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. Claims 1-12, 21-24, and 26 are rejected under 35 U.S.C. 102(b) as being

anticipated by Laube (US Pat. No. 4,653,086).

17. As to claim 1, Laube discloses a method for transmitting graphical data via a

communication line (Abstract), comprising:

generating graphical data representative of a user input (column 6, lines 64-

66);

buffering the graphical data in memory (column 6, line 66-column 7, line 1);

and

transmitting portions of the graphical data over the communication line to a

remote device (column 7, lines 1-10 and column 5, lines 45-47) at a controlled

rate that does not exceed a predetermined maximum data transfer rate at which

a bandwidth of the communication line would be exceeded (column 5, lines 47-

52, transmission using frequency division multiplexing inherently is done at a

controlled rate with a predetermined maximum data transfer rate, i.e. the

bandwidths of the frequency divisions).

18. As to claim 6, Laube a method for transmitting graphical data via a

communication line, comprising:

generating graphical data representative of a user input (column 6, lines 64-66);

identifying discrete data points of the generated graphical data (column 6, line 66-column 7, line 1, extracted coordinate values read on "discrete data points"); and

transmitting only the identified discrete data points over the communication line to a remote device (column 7, lines 1-10 and column 5, lines 45-47) such less than all of the generated graphical data is transmitted so as to not exceed a bandwidth of the communication line (column 5, lines 47-52, transmission using frequency division multiplexing inherently is done at a controlled rate with a predetermined maximum data transfer rate, i.e. the bandwidths of the frequency divisions).

19. As to claim 24, Laube a system for sharing graphical data via a communication line (Abstract), comprising:

means for receiving voice data (column 1, lines 60-63);

means for generating graphical data representative of a user input entered into a touch-sensitive display (column 6, lines 64-66); and

means for simultaneously transmitting the voice data and information representative of the generated graphical data via the communication line such that a bandwidth of the communication line is not exceeded (column 5, lines 45-53, transmission using frequency division multiplexing inherently is done at a

controlled rate with a predetermined maximum data transfer rate, i.e. the

bandwidths of the frequency divisions), wherein the means for transmitting

comprise means for buffering the graphical data and means for transmitting

portions of the graphical data over the communication line at a controlled rate

that does not excess a predetermined maximum data transfer rate (column 5,

lines 45-53).

20. As to claim 26, it is rejected by the same rationale set forth in claim 6's rejection.

21. As to claims 2 and 7, Laube discloses generating graphical data comprises

generating graphical data representative of a line entered using a touch-sensitive

display (Fig. 4, and column 6, line 64-column 7, line 1).

22. As to claim 3, Laube discloses transmitting portions of the graphical data to such

that no more than approximately 2 kilobits of graphical data is transmitted per

second (column 5, lines 45-52).

23. As to claim 4, Laube discloses receiving voice data input via a telephone (Fig. 1

and column 1, lines 60-63).

24. As to claims 5 and 12, Laube discloses simultaneously transmitting the voice data over the communication line along with the portions of graphical data (column 5, lines 45-53).

25. As to claim 8, Laube discloses identifying data points on a periodic basis in which a data point is identified for every predetermined period during user input (column 6, line 64-column 7, line 1).

26. As to claim 9, Laube discloses identifying discrete data points comprises identifying data points on a line length basis in which a data point is identified for every predetermined length of user input (column 5, lines 1-7, distance between "the coordinates" is the predetermined length).

27. As to claim 10, Laube discloses buffering the generated graphical data and identifying new discrete data points that are positioned between the previously identified data points and transmitting the new data points over the communication line (column 6, line 64-column 7, line 5, "redundancy reduction" will only send newly identified points).

28. As to claim 11, Laube discloses repeating the steps of claim 10 in an iterative process (column 6, line 64-column 7, line 5, the process is clearly continuous until the phone is hung up, column 7, lines 30-33).

29. As to claim 21, Laube discloses providing an indication can to the user entering the input that communicates what portion of the input has been transmitted or is currently visible to a recipient (column 6, lines 64-66, what is displayed for the user displayed for the recipient).

30. As to claim 22, Laube discloses providing an indication comprises showing a portion of the input in at least one of a different color (Fig. 4, and column 6, line 64-column 7, line 1), a different grayscale, and a different line thickness.

31. As to claim 23, Laube discloses comprising removing the indication after passage of a period of time (column 7, lines 30-33, when the phone is hung up, the writing is erased).

Claim Rejections - 35 USC § 103

32. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

33. Claims 17-20 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laube in view of Lamb (US Pat. No. 6,791,571).

34. As to claim 17, Laube discloses a method for transmitting graphical data via a

communication line (Abstract), comprising:

generating graphical data representative of a user input (column 6, lines 64-

66);

identifying a reference data point (column 6, line 66-column 7, line 1, any

extracted coordinate value reads on "a reference point");

transmitting information that describes the reference data point via the

communication line (column 7, lines 1-10 and column 5, lines 45-47);

identifying coordinates of a further data point that identify the location of the

further data point relative to the reference data point (column 6, line 66-column 7,

line 1); and

transmitting the coordinates to another device via the communication line

(column 7, lines 1-10 and column 5, lines 45-47).

Laube, however, does not disclose that the coordinates are relative, rather

Laube identifies and transmits coordinates and does not go into specifics as to

how they are defined.

Lamb, however, discloses using a relative coordinate system for processing

and displaying graphical information (Abstract).

Because both Laube and Lamb teach methods of identifying, transmitting,

and reproducing graphical data, it would have been obvious to one of ordinary

skill in the art to substitute one method for the other in order to achieve the

predictable result of displaying the desired graphical information.

35. As to claim 27, Laube discloses a computer-readable memory that stores a

system for sharing graphical data via a communication line (Abstract), the system

comprising:

means for receiving voice data (column 1, lines 60-63);

means for generating graphical data representative of a user input entered

into a touch-sensitive display (column 6, lines 64-66); and

means for simultaneously transmitting the voice data and information

representative of the generated graphical data via the communication line such

that a bandwidth of the communication line is not exceeded (column 5, lines 45-

53), and means for transmitting the coordinates via the communication line

(column 7, lines 1-10 and column 5, lines 45-47).

Laube, however, does not disclose that the coordinates are relative, rather

Laube identifies and transmits coordinates and does not go into specifics as to

how they are defined.

Lamb, however, discloses using a relative coordinate system for processing

and displaying graphical information (Abstract).

Because both Laube and Lamb teach methods of identifying, transmitting,

and reproducing graphical data, it would have been obvious to one of ordinary

skill in the art to substitute one method for the other in order to achieve the

predictable result of displaying the desired graphical information.

36. As to claim 18, Laube and Lamb discloses the invention substantially with regard

to the parent claim 17, and further disclose generating graphical data comprises

generating graphical data representative of a line entered using a touch-sensitive

display (Laube, Fig. 4, and column 6, line 64-column 7, line 1).

37. As to claim 19, Laube and Lamb discloses the invention substantially with regard

to the parent claim 17, and further disclose identifying a new reference data point

(Laube, column 5, lines 1-7), transmitting information that describes the new

reference data point via the communication line (Laube, column 5, lines 7-10),

identifying coordinates of another data point that identify the location of the other

data point relative to the new reference data point (Laube, column 5, lines 1-7,

occurs again when the pen is moved), and transmitting the coordinates via the

communication line (Laube, column 5, lines 7-10).

Laube, however, does not disclose that the coordinates are relative, rather Laube

identifies and transmits coordinates and does not go into specifics as to how they

are defined.

Lamb, however, discloses using a relative coordinate system for processing and

displaying graphical information (Abstract).

38. As to claim 20, Laube and Lamb discloses the invention substantially with regard

to the parent claim 17, and further disclose simultaneously transmitting the voice

data over the communication line along with the portions of graphical data

(Laube, column 5, lines 45-53).

39. Claims 29-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Laube in view of Torihata et al (US Pat. No. 4,794,634), hereafter "Torihata."

40. As to claim 29, Laube discloses a sketchpad device (Fig. 1), comprising:

a processing device (Fig. 2, label 76);

an input device that is configured to receive voice data (Fig. 2, label 90 and

column 5, lines 45-53);

a user interface with which a user can input information (Fig. 2, label 30);

an output device that is configured to transmit data (Fig. 2, label 90 and

column 5, lines 45-53); and

memory that includes a sketch program that identifies user input entered via

the user interface and that generates graphical data representative of the user

input (column 6, line 66-column 7, line 1), and

a transmission control manager that is configured to, via the output device,

simultaneously transmit the voice data and information representative of the

generated graphical data via a communication line such that a bandwidth of the

communication line is not exceeded (column 5, lines 34-53).

But, Laube does not necessarily disclose that the sketchpad device is

independent and that the voice data is from a separate telephone.

However, Torihata discloses an independent sketchpad device that receives

and transmits voice data from a separate telephone (column 7, lines 12-17).

Therefore it would have been obvious to one of ordinary skill in the art at the

time of the invention to combine the teachings of Laube and Torihata in order to

simplify the device and debugging procedures on it, by physically separating the

graphical capabilities from its telephonic capabilities.

41. As to claim 30, Laube and Torihata disclose the invention substantially with

regard to the parent claim 29, and further disclose the input device comprises a

telephone jack (Laube, Abstract, lines 1-5).

42. As to claim 31, Laube and Torihata disclose the invention substantially with regard to the parent claim 29, and further disclose simultaneously transmitting the voice data over the communication line along with the portions of graphical data (Laube, column 5, lines 45-53).

43. As to claim 32, Laube and Torihata disclose the invention substantially with regard to the parent claim 29, and further disclose the output device comprises a modem (Laube, column 5, lines 45-52).

44. As to claim 33, Laube and Torihata disclose the invention substantially with regard to the parent claim 29, and further disclose providing an indication can to the user entering the input that communicates what portion of the input has been transmitted or is currently visible to a recipient (Laube, column 6, lines 64-66, what is displayed for the user displayed for the recipient).

45. As to claim 34, Laube and Torihata disclose the invention substantially with regard to the parent claim 29, and further disclose the transmission control manager is configured to buffer the graphical data (Laube, column 6, line 66-column 7, line 1) and transmit portions of the graphical data over the communication line at a controlled rate that does not exceed a predetermined maximum data transfer rate (Laube, column 5, lines 47-52, transmission using

frequency division multiplexing inherently is done at a controlled rate with a

predetermined maximum data transfer rate, i.e. the bandwidths of the frequency

divisions).

46. As to claim 35, Laube and Torihata disclose the invention substantially with

regard to the parent claim 29, and further disclose buffering the generated

graphical data and identifying new discrete data points that are positioned

between the previously identified data points and transmitting the new data

points over the communication line (Laube, column 6, line 64-column 7, line 5,

"redundancy reduction" will only send newly identified points).

47. As to claim 36, Laube and Torihata disclose the invention substantially with

regard to the parent claim 29, and further disclose identifying a new reference

data point (Laube, column 5, lines 1-7), transmitting information that describes

the new reference data point via the communication line (Laube, column 5, lines

7-10), identifying coordinates of another data point that identify the location of the

other data point relative to the new reference data point (Laube, column 5, lines

1-7, occurs again when the pen is moved), and transmitting the coordinates via

the communication line (Laube, column 5, lines 7-10).

48. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laube

and Torihata as applied to claims 29, in view of Kishimoto et al (US Pat. No.

4,597,101), hereafter "Kishimoto."

49. As to claim 37, Laube and Torihata disclose the invention substantially with

regard to the parent claim 29, and further discloses receiving via the

communication line discrete data points that represent graphical data (Laube,

column 6, line 64-column 7, line 1).

Laube does not disclose means for generating line segments that connect the

discrete data points, and means for displaying the line segments such that a

resultant line is shown that comprises the line segments and that represents a

user input entered into another device.

However, Kishimoto discloses receiving via the communication line discrete

data points that represent graphical data (column 10,lines 8-23), means for

generating line segments that connect the discrete data points (Fig. 4, and

column 7, lines 55-68, and "difference vectors" (column 2, lines 15-25) read on

"line segments"), and means for displaying the line segments such that a

resultant line is shown that comprises the line segments and that represents a

user input entered into another device (Fig. 4 and column 3, lines 59-65).

Therefore it would have been obvious to one of ordinary skill in the art at the

time of the invention to combine the teachings of Laube and Kishimoto in order to

more efficiently encode the graphical data thereby decreasing bandwidth

requirements (Kishimoto, column 2, lines 3-14).

Conclusion

50. Applicant's amendment submitted on April 26, 2007 necessitated the new

ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION**

IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the

extension of time policy as set forth in 37 CFR 1.136(a).

51. A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed

within TWO MONTHS of the mailing date of this final action and the advisory

action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

52. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Thomas J. Dailey whose telephone number is

571-270-1246. The examiner can normally be reached on Monday thru Friday;
9:00am - 5:00pm.

53. If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax
phone number for the organization where this application or proceeding is
assigned is 571-273-8300.

54. Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for
published applications may be obtained from either Private PAIR or Public PAIR.
Status information for unpublished applications is available through Private PAIR
only. For more information about the PAIR system, see http://pair-
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free). If you would like assistance from a USPTO Customer Service
Representative or access to the automated information system, call 800-786-
9199 (IN USA OR CANADA) or 571-272-1000.

TJD
9/21/2007

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SUPERVISORY PATENT EXAMINER